

S/N 10/014,177

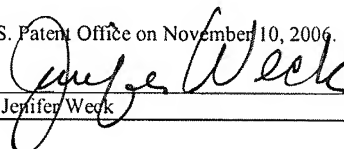
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Vij Rajarajan et al. Examiner: Korobob, Vitali A.
Serial No.: 10/014,177 Group Art Unit: 2155
Filed: 12/11/2001 Docket No.: 40062.147USU1/MS167411.2
Title: METHOD AND SYSTEM FOR MANAGEMENT OF MULTIPLE
NETWORK RESOURCES

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this paper is being transmitted electronically to the U.S. Patent Office on November 10, 2006.

By: 
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AMENDMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

27488

PATENT TRADEMARK OFFICE

Dear Sir:

In response to the Office Action mailed August 10, 2006, please amend the above-identified application as follows:

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page 8 of this paper

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend the claims as follows:

Listing of Claims:

1. (Currently Amended) A distributed system for managing two or more ~~a plurality of resources, the distributed system~~ comprising:

one or more objects, the one or more objects comprising information;

two or more resources, wherein each resource is operable to manage the information of one or more objects, the two or more resources comprising one or more resources of differing type;

two or more datastores, each datastore in electrical communication with one of the resources, each datastore storing objects associated with an associated resource;

a management module in communication with the two or more ~~plurality of resources; the management module operable to receive capable of receiving~~ a request to access information ~~from related to one or more of the plurality of resources, the plurality of resources comprising one or more resources of differing type, the management module operable to access the information from the one or more resources;[[and]]~~

wherein two or more resources manage the information of a same object; and

wherein the information relates to one or more entities that use the two or more resources.

2. (Currently Amended) A system as defined in claim 1 wherein the management module comprises a configuration manager for receiving information from two or more ~~a plurality of resources~~ and a configuration store for storing predetermined information for the two or more ~~plurality of resources~~.

3. (Currently Amended) A system as defined in claim 2 wherein the configuration manager installs resources such that the management module can modify configuration information for the two or more ~~plurality of~~ resources.

4. (Currently Amended) A system as defined in claim 3 wherein each of the ~~plurality of the~~ resources provides information to the configuration manager in XML format.

5. (Currently Amended) A system as defined in claim 1 wherein each object comprises:

one or more attributes, each attribute having a data field and a value;

one or more associated tasks that may be performed on the object; and wherein the management module accesses attribute and task information from ~~the~~ associated resources in response to a request to access information.

6. (Original) A system as defined in claim 5 wherein the attribute information for an object is provided by more than one resource.

7. (Original) A system as defined in claim 6 wherein each object is defined by a property sheet and the attribute information is a property page in the property sheet.

8. (Original) A system as defined in claim 6 wherein the task information for an object is provided by more than one resource.

9. (Original) A system as defined in claim 6 wherein each object is defined by a property sheet and the task information is in a property page associated with the property sheet.

10. (Currently Amended) A system as defined in claim 6 further comprising:
a configuration manager for receiving and storing information from two or more a ~~plurality of~~ resources relating to managed objects; and

a property sheet manager for receiving and storing property sheet information related to managed objects.

11. (Currently Amended) A system as defined in claim 1 further comprising:

a configuration manager for receiving information from two or more ~~a plurality of~~ resources, each resource having associated objects;

a configuration store for storing predetermined information for the two or more ~~plurality of~~ resources; and

a search manager adapted to receive predetermined search information from the two or more ~~a plurality of~~ resources;

a search data store adapted to store predetermined search information for the two or more ~~various~~ resources; and

wherein the search manager searches the two or more ~~plurality of~~ resources in response to a single search request.

12. (Currently Amended) A system as defined in claim 1 wherein the management layer further comprises:

a configuration manager for receiving information from two or more ~~a plurality of~~ resources, each resource having associated objects;

a configuration store for storing predetermined information for the two or more ~~plurality of~~ resources; and

a task manager, wherein the task manager receives task information from the configuration manager related to tasks that may be completed in managing the two or more ~~plurality of~~ resources.

13. (Currently Amended) A method of managing a two or more ~~plurality of~~ resources, each resource having one or more managed objects, wherein each of the one or more managed objects has associated attribute and task information, the method comprising:

- receiving information from a first resource related to attribute information for a first managed object;
- storing the information received from the first resource with the first managed object;
- receiving information from a second resource related to attribute information for the first managed object, wherein the second resource is a different type than the first resource;
- separately storing the information received from the second resource with the information received from the first resource in association with the first managed object;
- receiving a request to access information related to the first managed object; ~~[[and]]~~
- upon receiving the request to access information related to the first managed object, accessing the first managed object; and
- retrieving ,from the accessed object, information stored by the first resource and separately stored by the second resource ~~to access information related to the first managed object.~~

14. (Original) A method as defined in claim 13 wherein the information received from the first resource comprises a first property page and wherein the information received from the second resource comprises a second property page and wherein the method further comprises:

- creating a property sheet for the first managed object;
- associating the first property page with the property sheet; and
- associating the second property page with the property sheet.

15. (Currently Amended) A method as defined in claim 14 further comprising:
receiving a search request from a client computer system; and
searching two or more ~~a plurality of~~ resources in response to the single search request
using information associated with the property sheet.

16. (Original) A method as defined in claim 15 further comprising the act of
sharing search information between resources.

17. (Currently Amended) A method as defined in claim 14 further comprising:
receiving a task request from a client computer system; and
in response to the task request, requesting task completion from two or more ~~a plurality of~~ resources.

18. (Currently Amended) A method as defined in claim 17 wherein the act of
requesting task completion from two or more ~~a plurality of~~ resources comprises:
identifying two or more resources to configure in response to the task request; and
performing the task by accessing the two or more resources identified to
perform a task from a client's computer system.

19. (Original) A method as defined in claim 13 wherein the act of receiving
information from the first and second resources is performed by a configuration manager and
wherein the method further comprises:

notifying a search manager that search information has been received.

20. (Original) A method as defined in claim 13 wherein the act of receiving
information from the first and second resources is performed by a configuration manager and
wherein the method further comprises:

notifying a task manager that search information has been received.

21 – 23. Cancelled

24. (Previously presented) A computer program product readable by a computer and having stored thereon a data structure comprising information provided by a first resource relating to attribute information for a first managed object and information provided by a second resource relating to attribute information for the first managed object, wherein the attribute information is utilized in response to a request for information about the first managed object.

25. (Previously presented) The computer program product as defined in claim 24 wherein the data structure further comprises task information provided by the first and second resources utilized in response to a request for information about the first managed object.

26. (Currently Amended) The system of claim 1, wherein the two or more ~~plurality of~~ resources comprises one of printer, workstation, server, databases, security systems, email account, or user account.

REMARKS

This Amendment and the following remarks are intended to fully respond to the Office Action mailed August 10, 2006. In that Office Action, claims 1-26 were examined and all claims were rejected. More specifically, claims 1-12, and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ramberg et al. (USPN 6,857,013) , hereinafter “Ramberg,” in view of Sistanizadeh et al. (USPN 6,681,232), hereinafter “Sistanizadeh;” and claims 13-25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Dardinski et al. (USPN 6,754,885), hereinafter “Dardinski.” Reconsideration of these rejections, as they might apply to the original and amended claims in view of these remarks, is respectfully requested.

In this Response, claims 1-5, 10-13, 15, 17, 18, and 26 have been amended; claims have 21-23 have been canceled; no claims have been added. Therefore, claims 1-20 and 24-26 remain present for examination.

Interview Summary

Applicants would like to than Examiner Korobov and Examiner Najjar for their time and input in a telephone interview held with Applicants’ representative, Tadd Wilson, on October 12, 2006. During the interview, the Examiners and Mr. Wilson discussed a summary of the invention, how the invention differed from the cited prior art and suggested claim amendments. The amendments discussed are essentially as presented above. Applicants hope that the interview will forward the application to allowance.

Claim Rejections – 35 U.S.C. § 103

Claims 1-12, and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ramberg in view of Sistanizadeh. These rejections are the same as the rejections in the office

action dated October 20, 2005. Applicants respectfully traverse the rejections and request all claims be allowed.

To establish *prima facie* obviousness under 35 U.S.C. 103(a), three basic criteria must be met, namely: (1) the reference or references when combined must teach or suggest each claim limitation; (2) there must be some suggestion or motivation to combine the references or modify the reference teaching; and (3) there must be a reasonable expectation of success. MPEP § 2142. Applicants have amended the claims to address the elements that the Examiner believed were missing from the claims as previously presented. As such, the previous arguments still apply as to why Ramberg and Sistanizadeh, either alone or in combination, fails to disclose or suggest all the limitations of the claims, particularly, two or more resources manage one object or the information relates to one or more entities that use the two or more resources.

Ramberg provides “a method and system for remotely diagnosing and reconfiguring a plurality of networked Automatic Data Collection (‘ADC’) device platforms.” Col. 2, lines 25-28. More particularly, Ramberg provides a system allowing a technician to remotely diagnose ADC platforms using a web browser and a SNMP sub agent to translate information into ADC specific formats. *See* col. 4, lines 29-45. Ramberg differs from the present invention in many important ways.

Ramberg does not include one or more of the same elements as amended claim 1, *i.e.*, two or more resources manage one object. An important feature of the present invention as defined in the claims is that more than one resource can manage a single object and each resource can manage more than one object. Generally, the present invention may, in some embodiments, be thought of as an object-centric but resource-driven system. The application states:

[E]ach resource 306 manages one or more objects, such as objects 329, 331, and 333. An object is a particular set of data and information describing the data. For instance a user object may relate to a particular user in the network and the object may include relationship or meta information about the user.

Page 16, lines 2-7 (emphasis added).

In contrast, Ramberg uses a separate system, the ADC device platform computing system, to communicate with ADC devices and retrieve information from the ADC devices. The ADC devices, *i.e.*, the resources, do not manage the information. *See Ramberg*, col 5, line 59 – col. 6, line 22. Rather, an ADC platform computer system queries, arranges, and provides the information, *i.e.*, the ADC computer system, not the resources, manages the information. *See Ramberg*, Abstract; col. 6, lines 42-63.

Ramberg also does not contain “objects” that are the same or similar to the objects claimed in amended claim 1. The “objects,” in embodiments of the present invention, comprise information that relates to one or more entities that use the two or more resources, which may not include information about the resource itself. The application states:

Before creating a resource, a developer must know what objects, e.g., objects 329, will be managed, and what object tasks will be available to the user of the resource in managing those objects. For example, an object may relate to system users, and a task may involve resetting a user’s password.

Page 16, lines 15-18.

Ramberg teaches storing and using information about the resources to repair malfunctioning ADC devices or control the ADC devices. *See Ramberg*, col. 4, lines 29-35. Ramberg includes a database of management information and a network protocol. *See Ramberg*, col. 6, lines 57-58. For example, information about the ADC devices is stored in a Management Information Base. *See Ramberg*, col. 7, lines 27-62. The ADC resource information about the functioning of the ADC devices is not the same as information about entities that may employ the resource.

The most significant difference between Ramberg and amended claim 1 is that two or more resources do not manage a single object having a single piece of ADC information in Ramberg. As the application states:

With respect to certain aspects of the present invention, the property sheets that are exposed to the system 304 by one resource are extendible by other resources. Fig. 5 illustrates the concept of having a separate, independent application or resource extend an existing property sheet. In Fig. 5, a property sheet representing a particular user object is illustrated in display 500. Consequently, the display 500 represents the object itself.

Page 28, lines 15-19 (emphasis added). The application further states:

Independent resources or applications may define one or more property pages associated with a particular object, such as user object 500 shown in Fig. 5. For example, assume that an Active Directory application exposed the user object 500. Also, assume the Active Directory application defined various property pages, e.g., the personal information page relating to unique personal identification data, such as name, home address, employee number, etc. Additionally, assume another, job-related property page was also defined by the Active Directory application and it included job-related information, such as the person's job title, building location, group, etc. Next, assume that another application is installed on the system, such as an email server. The email server may recognize user objects and supply a property page to be included in the user object property sheet, for instance to associate an email address with the user. Instead of creating a new property sheet, which would include much of the same information, such as the user's name, etc., the email address property page 512 is simply added to the user object property sheet.

Page 29, lines 9-22. The information about an object, and likewise the object itself, can be managed by two or more resource. Ramberg simply does not contain any description of two or more resources managing an object. Rather, a single resource, the ADC device, supplies a single set of information about the ADC device. *See generally Ramberg*, col. 7, line 43 – col. 8, line 25.

Sistanizadeh does not overcome the inadequacies of Ramberg. Sistanizadeh discloses an automated service level manager (SLM) for supporting side-area data communication services offered via regional IP-Over Ethernet on fiber networks. *See Sistanizadeh*, Abstract and col. 5,

lines 35-67. The SLM manages the information in the network. *See* col. 6, lines 51-56.

Sistanizadeh states:

The SLM 100 comprises a distributed system composed of data collectors, data analyzers, data managers and application servers. The SLM 100 may be accessed by carrier personnel, for example at the network operation center (NOC) or by customers, using a web based interface and appropriate communications links. From the customers' perspective, this web interface provides the Customer Expericen Center, as an always-on point of contact for operation support.

The SLM 100 utilizes a distributed software system. The software analyzes data collected by various software Agents (SNMP Agents, Latency Measurement Agents, Utilization Agents, etc.). The SLM software creates reports/benchmarks on the health of the network and services.

Sistanizadeh, col. 6, line 57 – col. 7, line 3 (emphasis added). As such, the SLM manages the object or information and not the resources. Likewise, two or more resources do not manage any single object. Simply, Sistanizadeh does not describe the limitations of amended claim 1.

For at least the reasons given above, amended claim 1 is allowable over Ramberg and Sistanizadeh either alone or in combination. All other claims, *i.e.*, claims 2-12, and claim 26 depend from allowable claim 1 and are also allowable over Ramberg and Sistanizadeh either alone or in combination. As such, Applicants respectfully request that Examiner allow the claims and issue a Notice of Allowance at his earliest convenience.

Claim Rejections – 35 U.S.C. § 102

Claims 13-25 were rejected under 35 U.S.C. § 102(e) as being anticipated by Dardinski.

Applicants respectfully traverse the rejections and request the Examiner to allow the claims at his earliest convenience.

In order for a reference to anticipate a claim under any sub-section of 35 U.S.C. §102, the reference must disclose each and every element as set forth in the claim. Verdegaal Bros. v. Union Oil Col. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Applicants have amended the claims to address the elements that the Examiner believed were missing from the claims as

previously presented. As such, the previous arguments still apply as to why Dardinski does not disclose each and every element of amended claim 13, *i.e.*, Dardinski does not describe accessing information stored by the first resource and separately stored by the second resource when accessing the object. As explained previously, the object information is accessible by two or more resources. The application states:

With respect to certain aspects of the present invention, the property sheets that are exposed to the system 304 by one resource are extendible by other resources. Fig. 5 illustrates the concept of having a separate, independent application or resource extend an existing property sheet. In Fig. 5, a property sheet representing a particular user object is illustrated in display 500. Consequently, the display 500 represents the object itself.

Page 28, lines 15-19 (emphasis added). The application further states:

Independent resources or applications may define one or more property pages associated with a particular object, such as user object 500 shown in Fig. 5. For example, assume that an Active Directory application exposed the user object 500. Also, assume the Active Directory application defined various property pages, e.g., the personal information page relating to unique personal identification data, such as name, home address, employee number, etc. Additionally, assume another, job-related property page was also defined by the Active Directory application and it included job-related information, such as the person's job title, building location, group, etc. Next, assume that another application is installed on the system, such as an email server. The email server may recognize user objects and supply a property page to be included in the user object property sheet, for instance to associate an email address with the user. Instead of creating a new property sheet, which would include much of the same information, such as the user's name, etc., the email address property page 512 is simply added to the user object property sheet.

Page 29, lines 9-22. Dardinski provides a different system.

Dardinski use an object model that is hierarchical. In the Dardinski description, the system is described with respect to a parameterized object:

A Parameterized Object has an ordered one-to-many association with the Parameter Definition object. This represents the set of locally defined parameters which 'belong' to, and ultimately define, this object.

Dardinski, col. 11, lines 17-20. Dardinski further states:

A Parameterized Object has an association to another Parameterized Object from which it inherits parameters. It is a zero-or-one association, and is referred to as its Definition, or parent, Parameterized Object. If a Parameterized Object does not have a definition, then it is considered to be a root Parameterized Object. A root Parameterized Object defines all of its parameters, not relying on another object to inherit them from. If a Parameterized Object has a Definition Parameterized Object association, then the Parameterized Object is a derived Parameterized Object. The derived Parameterized Object gets its parameters by inheriting them from the defining object and by adding its own through local Parameter Definition associations.

Dardinski, col. 11, lines 31-45. Dardinski provides a typical hierarchical object model for defining information. The present invention allows two or more resources to create and/or modify a single object. Thus, the present invention does not follow the hierarchical approach but provides a system, in embodiments, that is object-centric but resource driven. The system of the present invention, as defined in claim 13, is an improvement for managing network resources when several resources need to be updated with information from an object because several resources can modify the single object rather than have an object for each resource, as required by Dardinski. *See Dardinski*, col. 21, line 22 – col. 22, line 12.

For the foregoing reasons, amended claim 13 is allowable over the referenced prior art. Claims 14-25 depend from allowable claim 13, and these claims are also allowable. Applicants respectfully request that Examiner allow the claims and issue a Notice of Allowance at his earliest convenience.

Conclusion

This Amendment fully responds to the Office Action mailed on August 10, 2006. Still, that Office Action may contain arguments and rejections and that are not directly addressed by this Amendment due to the fact that they are rendered moot in light of the preceding arguments in favor of patentability. Hence, failure of this Amendment to directly address an argument

raised in the Office Action should not be taken as an indication that the Applicants believe the argument has merit. Furthermore, the claims of the present application may include other elements, not discussed in this Amendment, which are not shown, taught, or otherwise suggested by the art of record. Accordingly, the preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability.

It is believed that no further fees are due with this Response. However, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment with respect to this patent application to deposit account number 13-2725.

In light of the above remarks and amendments, it is believed that the application is now in condition for allowance and such action is respectfully requested. Should any additional issues need to be resolved, the Examiner is requested to telephone the undersigned to attempt to resolve those issues.

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